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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,909	03/15/2004	William Sears	31132.240	1487

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HAYNES AND BOONE, LLP
901 Main Street
Suite 3100
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EXAMINER

SCHILLINGER, ANN M

ART UNIT	PAPER NUMBER
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3774

MAIL DATE	DELIVERY MODE
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12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/800,909	Applicant(s) SEARS ET AL.	
	Examiner Ann Schillinger	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-25 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bryan et al. (US Pat. No. 6,156,067). Bryan et al. discloses the following of claim 1: a motion-preserving implant device comprising: a first plate (32) for engaging with a first bone (12), the first plate comprising a first recessed surface (62); a second plate (34) for engaging with a second bone (14), the second plate comprising a second recessed surface (64); an articulation member (22) positioned entirely between the two plates; and a motion-controlling member (24) extending between the first and second recessed surfaces (see Figure 3), wherein the articulation member is stiffer than the motion-controlling member (col. 4, lines 5-10).

Bryan et al. discloses the limitations of claims 2 and 3 in col. 4, lines 7-25.

Bryan et al. discloses the following of claim 5: a spinal implant for insertion between two vertebral bodies, comprising: a first plate (32) for engaging with the first vertebral body (12), the first plate comprising a first recessed surface (62); a second plate (34) for engaging with the second vertebral body (14), the second plate comprising a second recessed surface (64); an articulation member (22) made from a first material (col. 4, lines 5-10) and positioned entirely between the two plates (see Figure 3); and an elastic motion-controlling member (24) made from

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a second material and positioned between the first and second recessed surfaces (see Figure 3), the second material being more elastic than the first material (col. 4, lines 5-10).

Please note that changes have made to claim 5 that were not properly indicated in the amended response filed 10/3/2007.

Bryan et al. discloses the limitations of claims 6 and 7 in col. 4, lines 20-25.

Bryan et al. discloses the following of claim 27: an implant comprising: a first plate (34) for engaging with a first bone (14) comprising a superior and an inferior surface, the superior surface having a recessed surface portion (64) adjacent to a convex articulation surface portion (54); a second plate (32) for engaging with a second bone (12) comprising a superior surface and an inferior surface, the inferior surface having a concave articulation surface portion (62) in articulating engagement with the convex articulation surface portion; and a motion-controlling member (20) positioned between the recessed surface and the second plate (see Figure 3).

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Buttner-Janz et al. (US Pat. No. 5401269). Buttner-Janz et al. discloses the following of claim 1: a motion-preserving implant device comprising: a first plate (2) for engaging with a first bone (col. 2, line 63 through col. 3, line 2), the first plate comprising a first recessed surface (6); a second plate (1) for engaging with a second bone (col. 2, line 63 through col. 3, line 23), the second plate comprising a second recessed surface (6); an articulation member (8) positioned entirely between the two plates (see Figures 1-15); and a motion-controlling member (3) extending between the first and second recessed surfaces wherein the articulation member is stiffer than the motion-controlling member (col. 2, line 65 through col. 3, line 5).

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Buttner-Janz et al. discloses the limitations of claims 2 and 3 in col. 3, lines 3-20.

Buttner-Janz et al. discloses the following of claim 5: a motion-preserving implant device comprising: a first plate (2) for engaging with a first bone (col. 2, line 63 through col. 3, line 2), the first plate comprising a first recessed surface (6); a second plate (1) for engaging with a second bone (col. 2, line 63 through col. 3, line 23), the second plate comprising a second recessed surface (6); an articulation member (8) made from a first material (col. 2, lines 65-68) positioned entirely between the two plates (see Figures 1-15); and an elastic motion-controlling member (3) made from a second material and positioned between the first and second recessed surfaces, the second material being more elastic than the first material.

Buttner-Janz et al. discloses the limitations of claim 6 in col. 1, lines 4-9 and col. 2, lines 15-28.

Buttner-Janz et al. discloses the limitations of claim 10 as shown in Figures 1-4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. Bryan et al. discloses the invention substantially as claimed, however, it does not disclose a plurality of elastic members. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a singular elastic member into a plurality of

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elements, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

Bryan et al. discloses the limitations of claims 15, 16, and 21 in col. 4, lines 2-35.

Bryan et al. discloses the limitations of claims 19 and 20 as shown in Figure 3.

Bryan et al. discloses the following of claim 25: the spinal implant of claim 12 wherein at least one of the elastic members (22) is attached to one of the plates via an attachment mechanism (110).

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buttner-Janz et al. Buttner-Janz et al. discloses the invention substantially as claimed, however, it does not disclose a plurality of elastic members. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a singular elastic member into a plurality of elements, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

Buttner-Janz et al. discloses the limitations of claims 15 and 16 in col. 3, lines 3-20.

Buttner-Janz et al. discloses the limitations of claims 22 and 24 in Figure 8 where the first plurality of recesses are 6 and 12 of the plate 2 and the second plurality of recesses are those corresponding to plate 1.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Rogozinski (US Pat. No. 5888226). Bryan et al. discloses the invention substantially as claimed, however, it does not disclose using a non-elastic ball and socket. Rogozinski teaches an intervertebral prosthetic disc using a non-elastic ball and socket in col. 1, lines 42-61; and col. 3, line 47 through col. 4, line 38 for the purpose of making the disc more durable. Therefore, it

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would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-elastic ball and socket in order to make the disc more durable.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buttner-Janz et al. in view of Rogozinski (US Pat. No. 5888226). Buttner-Janz et al. discloses the invention substantially as claimed, however, it does not disclose using a non-elastic ball and socket. Rogozinski teaches an intervertebral prosthetic disc using a non-elastic ball and socket in col. 1, lines 42-61; and col. 3, line 47 through col. 4, line 38 for the purpose of making the disc more durable. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-elastic ball and socket in order to make the disc more durable.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Berry (U.S. Pat. No. 5,895,428). Bryan et al. discloses the invention substantially as claimed, however it does not disclose using an amorphous oxide coating on the implant's plates. Berry teaches using an amorphous oxide coating on a spinal implant's plates. Berry teaches this in col. 10, lines 38-42 and 56-57 for the purpose of decreasing the frictional wear on the implant over time. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to use this type of coating to prevent the implant from being damaged by friction.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buttner-Janz et al. in view of Berry (U.S. Pat. No. 5,895,428). Buttner-Janz et al. discloses the invention substantially as claimed, however it does not disclose using an amorphous oxide coating on the implant's plates. Berry teaches using an amorphous oxide coating on a spinal implant's plates. Berry teaches this in col. 10, lines 38-42 and 56-57 for the purpose of decreasing the frictional

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wear on the implant over time. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to use this type of coating to prevent the implant from being damaged by friction.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Xavier et al. (U.S. Pat. No. 6063121). Bryan et al. discloses the invention substantially as claimed, however Bryan et al. does not disclose using a cord with the motion-controlling member. Xavier et al. teaches a vertebral body prosthesis using a cord with the motion-controlling member in col. 4, lines 21-43 for the purpose of reinforcing the motion-controlling member's structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cord with the motion-controlling member in order to reinforce the motion-controlling member's structure.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Michelson (U.S. Pat. No. 6,350,283). Bryan et al. discloses the invention substantially as claimed, however Bryan et al. does not disclose using a bio-resorbable material on the elastic members. Michelson teaches a spinal implant using a bio-resorbable material on the elastic members in col. 2, lines 47-67 for the purpose of allowing those implant parts to be biologically replaced in the body over time. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to use a bio-resorbable material on the elastic members in order to allow those implant parts to be biologically replaced in the body over time.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Rabbe et al. (U.S. Pat. No. 5776197). Bryan et al. discloses the invention substantially as claimed, however Bryan et al. does not disclose having hollow portions in the implant. Rabbe

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et al. teaches a vertebral prosthesis using hollow portions in col. 3, lines 40-50 for the purpose of allowing bone ingrowth. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to include hollow portions in order to allow bone ingrowth.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryan et al. in view of Ray et al. (U.S. Pat. No. 4,772,287). Bryan et al. discloses the invention substantially as claimed, however, Bryan et al. does not disclose using gel in the elastic members. Ray et al. teaches a spinal disc implant using gel in the elastic members in col. 3, lines 8-17 because gel has inherent properties that mimic the natural movement of intradiscal nuclear tissue. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to use gel in the elastic members of the implant because their viscosity and velocity-shear behavior matches that of the intradiscal nuclear tissue.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buttner-Janz et al. in view of Hochshuler et al. (U.S. Pat. No. 6,576,016). Buttner-Janz et al. discloses the invention substantially as claimed, however, Buttner-Janz et al. does not disclose arranging the plurality of recesses in a circular dove-tail shape. Hochshuler et al. teaches a spinal prosthesis that arranges the plurality of recesses in a circular dove-tail shape in col. 2, lines 15-67 for the purpose of conforming to the shape of the plates and the vertebrae. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the plurality of recesses in a circular dove-tail shape in order to conform to the shape of the plates and the vertebrae.

Response to Arguments

Applicant's arguments with respect to the added limitations of one part of the prosthesis being stiffer than another, have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 10/3/2007 have been fully considered but they are not persuasive. Regarding the interpretation of the claim language "engage/engaging/engagement," the examiner is not limited to the intended meanings provided by the Applicant or a prior art reference. The examiner will only be held to the Applicant's definition if it is explicitly stated in the specification. Since no explicit definition for engage has been provided, the claim language should be given its broadest reasonable interpretation. In this case the terms have been interpreted according to their dictionary definition to cause to become interlocked; interlock with" (engage. Dictionary.com. *Dictionary.com Unabridged (v 1.1)*. Random House, Inc. <http://dictionary.reference.com/browse/engage> (accessed: December 19, 2007)). Here the intervening element 20 causes the two plate portions to interlock or connect with each other.

Conclusion

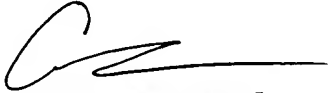
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Schillinger whose telephone number is (571) 272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on (571) 272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ann Schillinger
December 19, 2007



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